

generating said digital signature and encrypting said digital data, based upon
said secret key and said software; and
outputting the digital signature to the information device.

REMARKS

This application has been reviewed in light of the Office Action dated November 5, 2001. Claims 1-20 and 26-30 remain in this application. Claims 1, 6, 10, 14, 26-28 and 30 are independent. Reconsideration and further examination are respectfully requested.

Claims 1-20 and 26-30 were rejected under 35 U.S.C. § 103(a) over Friedman (IEEE Vol. 39) in view of U.S. Patent No. 5,157,726 (Merckle et al.). In maintaining this rejection from the prior Office Action, pages 6 and 7 of the current Office Action stated that Applicant's arguments did not match claim language, in that the claims did not specify use of a secret key to encode all or part of an original image signal. In response, all claims herein have been amended to make this feature explicit, although the word "encrypt" has been used in the place of "encode".

It is therefore believed that the claims herein are fully in condition for allowance.

Moreover, entry of this Amendment is believed proper, even though the rejection has been made "Final". It is clear that the Examiner has already appreciated the significance of encryption with the secret key. Therefore, in combination with the Examiner's overall familiarity with the subject matter of the application and that of the art,

it is respectfully submitted that entry of the Amendment would not raise any significant new issues or require undue consideration or search. Entry is respectfully requested.

In any event, however, entry of this Amendment After Final Rejection, as an earnest effort to advance prosecution and reduce the number of issues, is respectfully requested. Should the Examiner believe that issues remain outstanding, he respectfully requested to contact Applicant's undersigned attorney in an effort to resolve such issues and advance the case to issue.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our Costa Mesa, California office by telephone at (714)540-8700. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,


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VERSION SHOWING CHANGES MADE TO CLAIMS

1. (Four Times Amended) In an information input device, the combination

of:

[a)] means for inputting first information;

[b)] means for receiving secret key information and software for generating a digital signature from an external device and for storing such received secret key information and said software, said secret key information being the secret key of a person using the information input device;

[c)] means for using said software to generate a digital signature and to encrypt [based upon the] said first information [and the] based upon said secret key information; and

[d)] means for outputting said first information containing said digital signature, whereby the output information is provided with the digital signature of the person who uses the information input device.

6. (Four Times Amended) An information input device comprising:

[a)] means for inputting first information;

[b)] means for compressing said first information;

[c)] means for receiving secret key information and software for generating a digital signature from an external device and for storing said received secret key information and

said software, said secret key information being the secret key of a person using the information input device;

[d)] means for using said software to generate a distinguishing information and to encrypt said first information compressed by said compressing means based on [the] said secret key information [and the information compressed by said compressing means]; and

[e)] means for outputting said first information containing said digital signature, wherein said external device stores the secret key corresponding to a registered user; and

whereby the output information is provided with the digital signature of the person who uses the information input device.

10. (Four Times Amended) An image input apparatus comprising:

[a)] an image input device for inputting said image data;

[b)] means for receiving secret key information and software for generating a digital signature based on said secret key information from an external device;

[c)] a memory for storing said software and said secret key information which is received from said external device, said secret key information being the secret key of a person using the information input device;

[d)] an operation device for carrying out an operation using said software[, the image data and the secret information] to produce a digital signature and encrypt said image data based on the secret key information; and

[e]) means for outputting said first information containing said digital signature, whereby the output information is provided with the digital signature of the person who uses the information input device.

14. (Four Times Amended) In an image input system:

[a]) a first terminal device for inputting image data;

[b]) a second terminal device for receiving secret key information from an external device and an algorithm for generating a digital signature, said second terminal device having a memory for storing said received secret key information, said secret key information being information which corresponds to a user;

[c]) an [operator] operation device for executing a command based on said algorithm for generating a digital signature [by using the] and encrypting said image data [and the] based upon said secret key information; and

[d]) means for outputting said first information containing said digital signature, whereby the output information is provided with the digital signature of the person who uses the information input device.

26. (Four Times Amended) An information input method comprising:

[a] a step of] inputting first information into an information input device;

[b] a step of] receiving secret key information and software for generating a digital signature from an external device and for storing the received secret key information and

said software, said secret key information being the secret key of a person using the information input device;

[c) a step of using] executing said software to generate a digital signature [based upon the] and to encrypt said first information [and the] based upon said received secret key information; and

[d)] outputting said first information containing said digital signature,
whereby the output information is provided with the digital signature of the person who uses the information input device.

27. (Four Times Amended) A computer readable memory programmed to cooperate with a data processor and an information input unit to carry out:

[(a)] a step of inputting first information into an information input device;

[(b)] a step of receiving secret key information and software for generating a digital signature from an external device and storing the received secret key information and said software, said secret key information being the secret key of a person using the information input device;

[(c)] a step of using said software to generate a digital signature [based upon the] and to encrypt said first information [and the] based upon said secret key information received from the external device; and

[d)] a step of outputting said first information containing said digital signature,

whereby the output information is provided with the digital signature of the person who uses the information input device.

28. (Amended) An apparatus which is detachable [to] from an information device comprising:

means for receiving digital data from the information device;

means for storing a secret key and software for generating a digital signature;

processing means for generating said digital signature [based on] and for encrypting said digital data[,] based upon said secret key and said software; and

means for outputting the digital signature to the information device.

30 (Amended) A method for supplying a digital signature by use of apparatus which is detachable to an information device, said method comprising [the steps of]:

receiving digital data from the information device;

storing a secret key and software for generating a digital signature;

generating said

digital signature [based on] and encrypting said digital data, based upon said secret key and said software; and

outputting the digital signature to the information device.